

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) A polymer gel electrolyte composition having a semi-interpenetrating polymer network structure, and comprising a crosslinked polymer network matrix having a three-dimensional crosslinked structure containing a solution of an electrolyte in a non-aqueous solvent, and a non-crosslinked polymer included in the crosslinked polymer network matrix penetrating the crosslinked polymer network gel matrix, the polymer gel electrolyte composition containing 1 part by weight of the crosslinked polymer, 0.1 to 2 parts by weight of the crosslinked polymer network matrix and 3 parts by weight or more of the electrolyte solution,

wherein the non-crosslinked polymer is obtained by reacting a polyalkylene glycol compound having one terminal hydroxyl group protected, with a precursor polymer containing an ethylene unit and/or propylene unit and an unsaturated carboxylic acid unit

esterifying a precursor polymer containing (a) an ethylene unit and/or propylene unit and (b) an unsaturated carboxylic acid unit, with a polyalkylene glycol compound having one terminal hydroxyl group protected,

conducting the esterification until an amount of unreacted carboxylic acid in the precursor polymer becomes 5% by weight or less, in terms of acrylic acid, and

thereafter removing unreacted polyalkylene glycol until a content thereof in the non-crosslinked polymer becomes 10% by weight or less.

Claim 2 (canceled).

3. (original) The composition according to claim 1, wherein the polyalkylene glycol is a polyethylene glycol, a polypropylene glycol or a polyethylene/propylene glycol.

4. (currently amended) The composition according to claim 1, wherein the non-crosslinked polymer further contains an additional copolymerizable monomer unit in an amount of [[.30]] 30% by mole or less.

Claim 5 (canceled).

6. (original) The composition according to claim 1, wherein the non-crosslinked polymer has a weight-average molecular weight of about 2,000 to 800,000.

7. (currently amended) The composition according to claim 1, wherein the non-crosslinked polymer contains the ethylene unit and/or propylene unit in an amount of 50 to [[.95]] 95% by mole.

8. (previously presented) The composition according to claim 1, wherein the crosslinked polymer network matrix is constituted by crosslinkable monomers having two or more reactive functional groups selected from the group consisting of vinyl group, epoxy group, amino group, amide group, imide group, hydroxyl group, methylol group, carboxyl group and isocyanate group.

9. (original) The composition according to claim 1, wherein the electrolyte solution contains the electrolyte in an amount of 0.1 to 3 moles/liter.

10. (original) The composition according to claim 1, wherein the non-aqueous solvent is at least one aprotic solvent

selected from the group consisting of a carbonate ester, a lactone, a sulfolane, N-methylpyrrolidone and trimethyl phosphate.

Claims 11-20 (canceled).

21. (original) An electrochemical device comprising the polymer gel electrolyte composition according to claim 1.

Claim 22 (canceled).